U. SHORES

Field Note U8b3. Arniston shores – East Shore

Arniston East Shore. View to the south.

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There are four distinct shores around Arniston. They are, from south to north: South Shore, Struis Point, East Shore and North Shore (except for Struis Point, shore names were given by the author) (Figures 1 and 2). This Field Note is about the East Shore.

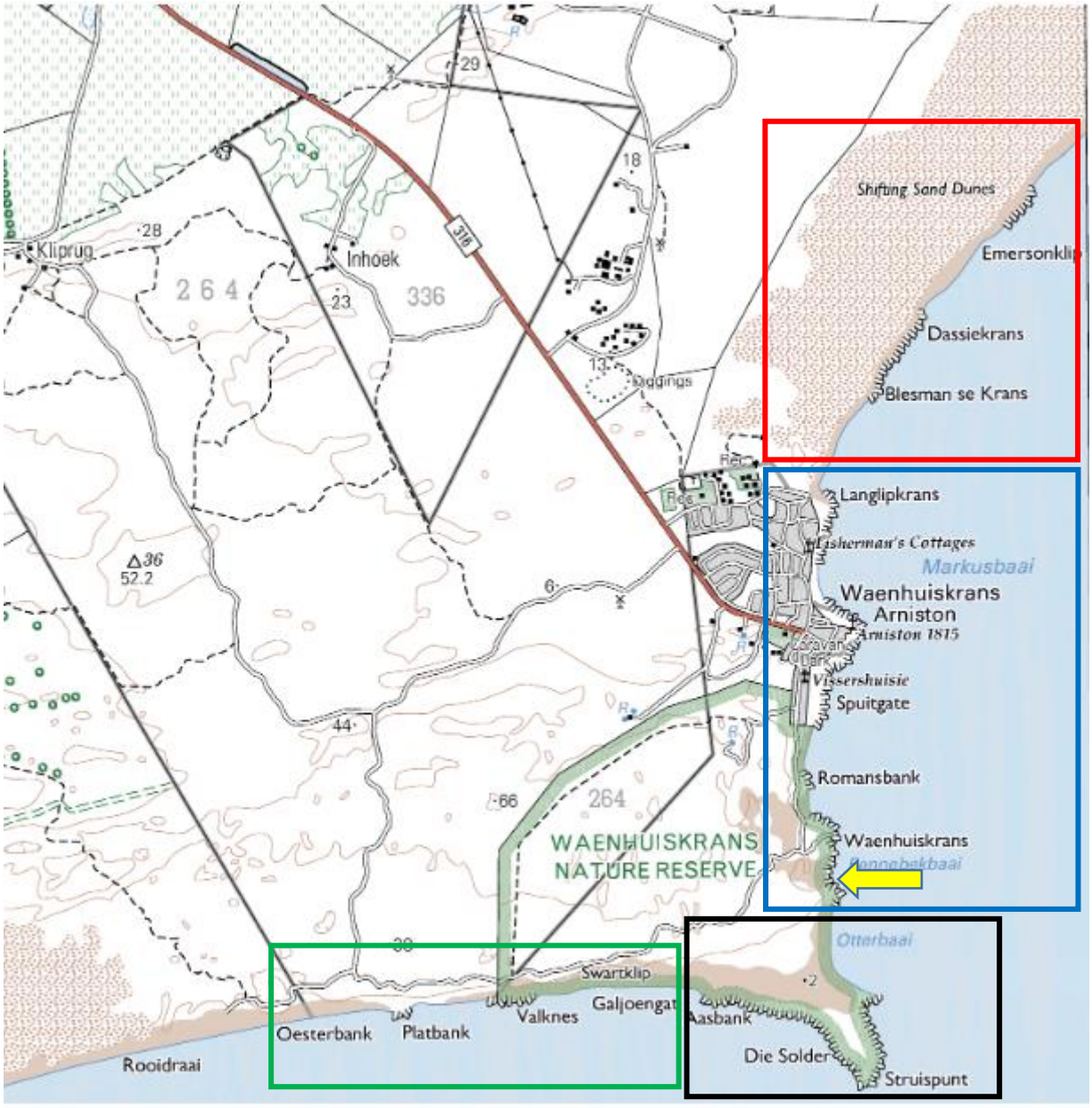

Figure 1. Topography map of Arniston shores. Boxes: green – South Shore; black – Struis Point; blue - East Shore; red – North Shore. Yellow arrow points to the location of the Waenhuiskrans Cave.

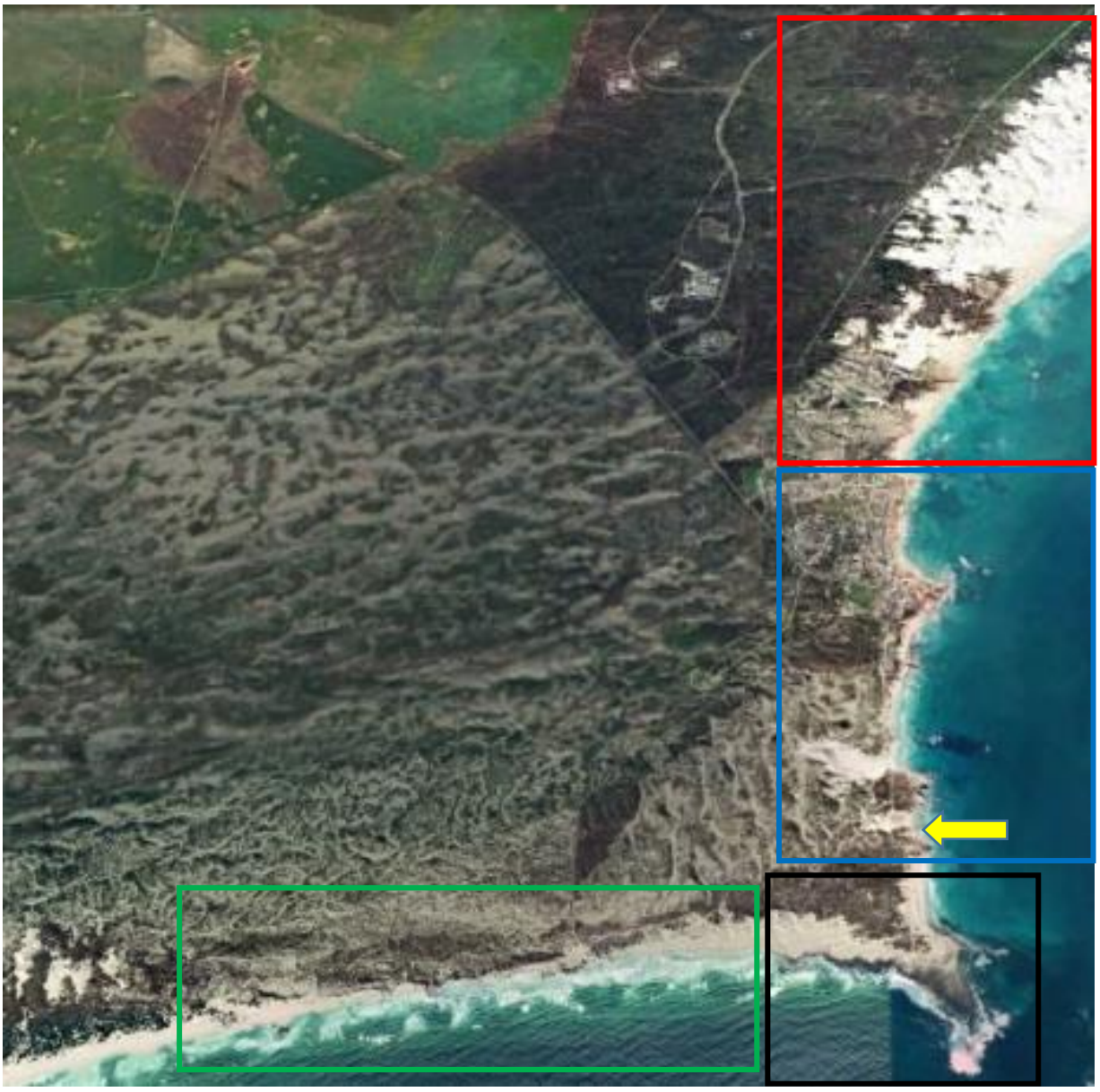

Figure 2. Satellite image of Arniston shores. Boxes: green – South Shore; black – Struis Point; Blue - East Shore; red – North Shore. Yellow arrow points to the Waenhuiskrans Cave.

The east Shore is unique as it contains most of the geomorphological features, which are associated with shore erosion and sedimentation. These features are sea cliffs, abrasion tables, notches and pools, sand beaches and boulder assemblages, calcrete capping as well as karst dissolution features. Readers are referred to other Field Notes in this chapter and in other chapters to learn more about the features described below.

Arniston East Shore is ~2.5 km long and extends from the north end of Otter Bay to Langlipkrans, at the north end of Kassiesbaai (the fishermen village) (Figure 3). The rocks along this shore are of the Klein Brak and the Waenhuiskrans Formations (Bredasdorp Group).

Figure 3. Satellite image of Arniston East Shore.

Sea cliffs of the Waenhuiskrans Formation, abrasion tables, boulder and pebbles assemblages and pocket sandy beaches are characteristic of this shore (Figures 4 and 5).

Figure 4. Top and bottom: sea cliffs, abrasion tables and small sandy beaches in the south part of the East Shore. Views to the south.

Figure 5. Top and bottom: sea cliffs, abrasion tables and small sandy beaches in the south part of the East Shore. Views to the north.

The seacliffs are subject to erosion by waves, and seastcaks are formed (Figure 6).

Figure 6. Top and bottom: sea stacks formed as a result of the erosion of the Arniston aeolianites.

The fishing harbour is located in the middle part of the East Shore (Figures 7 to 9).

Figure 7. Sea cliffs and abrasion tables in the north part of the East Shore. View to the north. Arrow points to the slipway.

Figure 8. View to the south from the slipway.

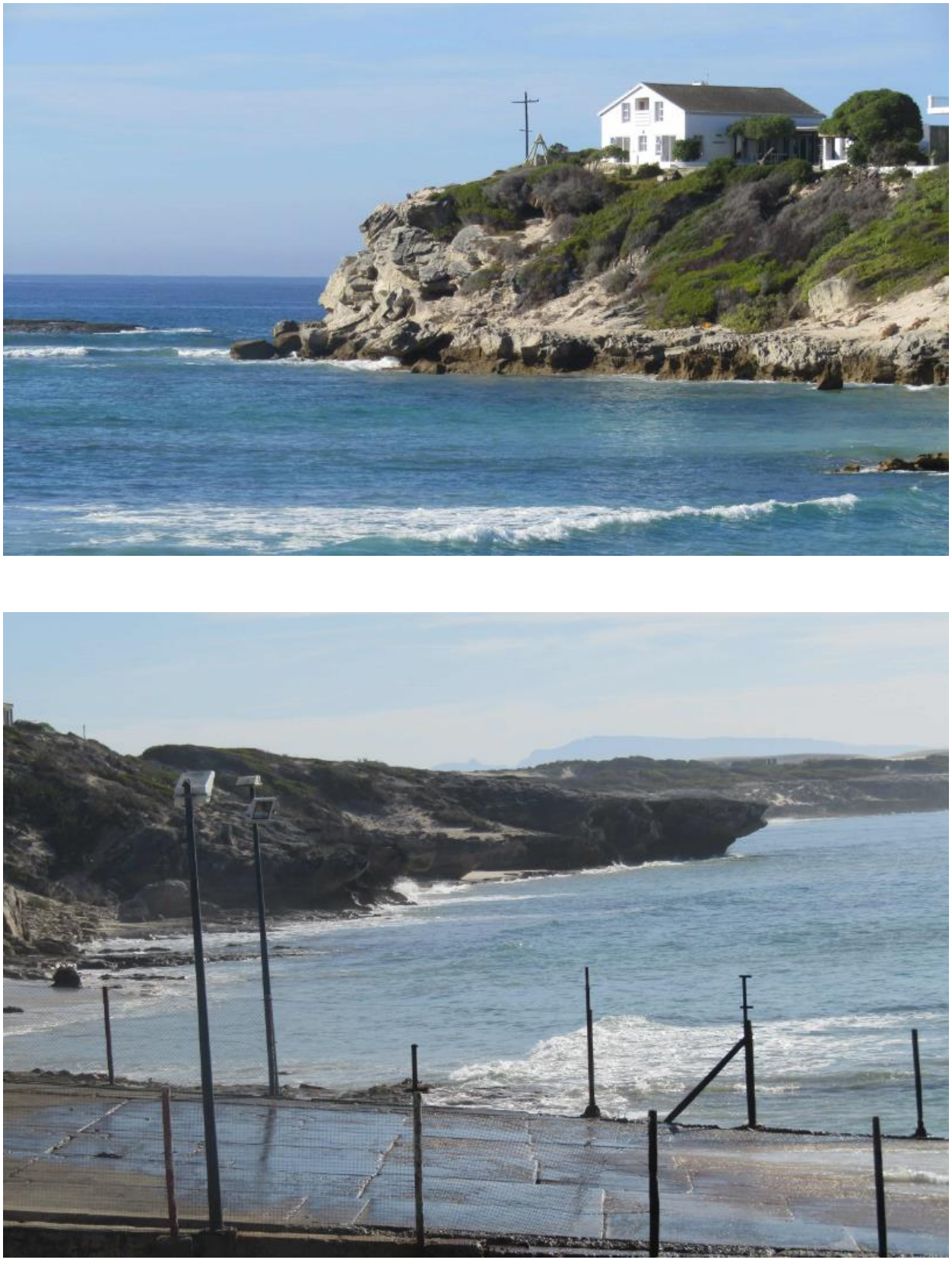

Figure 9. Sea cliffs of the middle part of the East Shore. Top – south of the harbour. Bottom – north of the harbour.

The sea cliffs in the northern part of the East Shore are lower than those along the other parts of this shore (Figure 10).

Figure 10. Top and bottom: sea cliffs in the north part of the East Shore. Views to the south.

The abrasion tables have different appearances (Figure 11).

Figure 11. Top and bottom - abrasion tables along the East Shore.

There are myriads of pebbles and boulders along the East Shore, most of which originated from the disintegration of the nearby Rietvlei Formation (sandstone) at Struis Point (Figure 12).

Figure 12. Top and bottom: boulder and pebble assemblages along the East Shore.

Conglomerates, possibly of the Klein Brak Formation (Bredasdorp Group) are found at the foot of the cliffs (Figure 13).

Figure 13. Top and bottom: conglomerates of the Klein Brak Formation(?) along the East Shore.

Other features of the Waenhuiskrans rocks are caves, pillars and pinnacles (Figures 14 and 15).

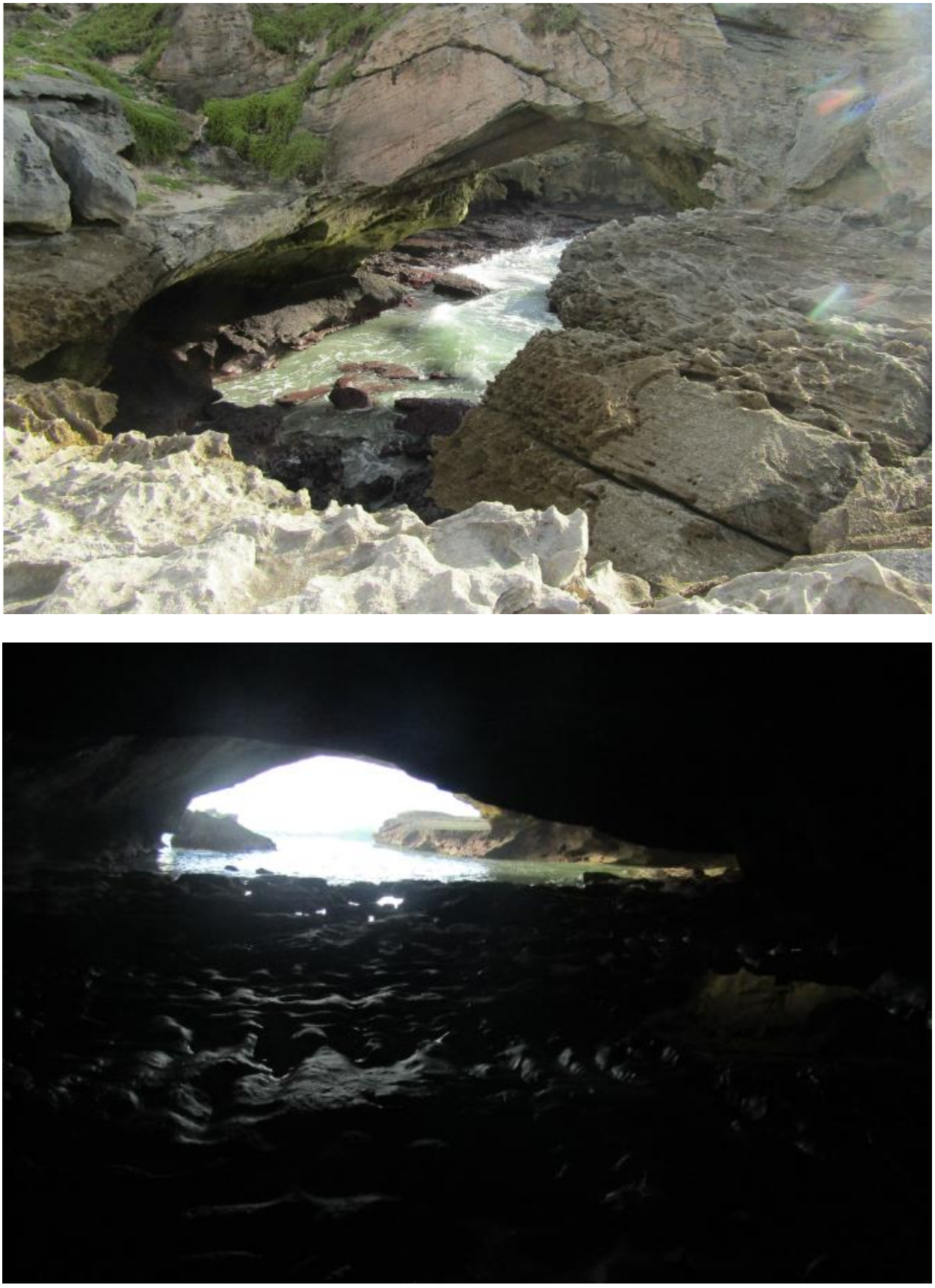

Figure 14. Top and bottom: caves along the East Shore.

Figure 15. Features along the East Shore. Top – dissolution pillars; bottom – karst pinnacles.

A calcrete crust covers the cliffs (Figure 16).

Figure 16. Top and bottom – the calcrete layer along the East Shore.

Dissolution features (tops of karst pipes) occur on top of the calcrete layer (Figure 17).

Figure 17. Top and bottom – dissolution features on the calcrete layer.

Read more about geomorphological features on this shore in the following Field Notes.

